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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------|------------------------------------|----------------------|---------------------|------------------|
| 10/583,971 | 06/22/2006 | Hiroshi Machida | SH-0064PCTUS | 8398 |
| | 7590 05/06/201 ELLECTUAL PROPEI | EXAMINER | | |
| 8321 OLD COU | JRTHOUSE ROAD | HOFFMANN, JOHN M | | |
| SUITE 200 VIENNA, VA 22182-3817 | | | ART UNIT | PAPER NUMBER |
| , | | | 1791 | |
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| | | | MAIL DATE | DELIVERY MODE |
| | | | 05/06/2010 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | Application No. | Applicant(s) | Applicant(s) | | |
|--|---|---------------------------------|---|------------------|--|--|
| Office Action Summary | | 10/583,971 | MACHIDA, HIRO | MACHIDA, HIROSHI | | |
| | | Examiner | Art Unit | | | |
| | | John Hoffmann | 1791 | | | |
| <i>The MAII</i> Period for Reply | LING DATE of this communication app | ears on the cover sheet wit | h the correspondence ac | idress | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | | | | |
| Status | | | | | | |
| 1) Responsi | ve to communication(s) filed on <u>23 Se</u> | entember 2000 | | | | |
| · <u> </u> | · · · <u> </u> | | | | | |
| ′ = | , | | | | | |
| • | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Closed III a | accordance with the practice under L | x parte Quayle, 1999 O.D. | 11, 400 O.O. 210. | | | |
| Disposition of Clai | ms | | | | | |
| 4a) Of the 5) | and 2 is/are pending in the applicati above claim(s) is/are withdraw is/are allowed. is/are rejected. is/are objected to. 4-2 are subject to restriction and/or election | vn from consideration. | | | | |
| Application Papers | s | | | | | |
| 9) <mark></mark> The specif | ication is objected to by the Examine | ٠. | | | | |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner. | | | | | | |
| Applicant n | nay not request that any objection to the | drawing(s) be held in abeyand | ce. See 37 CFR 1.85(a). | | | |
| Replaceme | ent drawing sheet(s) including the correct | on is required if the drawing(s | s) is objected to. See 37 C | FR 1.121(d). | | |
| 11)∐ The oath c | or declaration is objected to by the Ex | aminer. Note the attached | Office Action or form P | ΓΟ-152. | | |
| Priority under 35 U | I.S.C. § 119 | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| | ces Cited (PTO-892) | | ummary (PTO-413) | | | |
| | rson's Patent Drawing Review (PTO-948) sure Statement(s) (PTO/SB/08) Date | _ | /Mail Date formal Patent Application _· | | | |

DETAILED ACTION

Response to Amendment

The reply filed on 9/23/2009 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): It lacks a signature as required by 37 CFR 1.34. Two names and two registration numbers are given, thus two signatures required. The response has only one signature.

See 37 CFR 1.111. Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

The reply filed on 9/23/2009 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): because if fails to comply with 37 CFR 1.111 (see below) – specifically, it fails to point out the patentable novelty.

MPEP 714.04 Claims Presented in Amendment With No Attempt To Point Out Patentable Novelty

In the consideration of claims in an amended case where no attempt is made to point out the patentable novelty, the claims should not be allowed. See 37 CFR 1.111 and MPEP § 714.02.

An amendment failing to point out the patentable novelty which the applicant believes the claims present in view of the state of the art disclosed by the references cited or the objections made may be held to be not fully responsive and a time period set to furnish a proper reply if the statutory period has expired or almost expired (MPEP § 714.03). However, if the claims as amended are clearly open to rejection on grounds of record, a final rejection should generally be made.

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Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

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37 CFR § 1.111 Reply by applicant or patent owner to a non-final Office action.

(a)

- (1) If the Office action after the first examination (§ 1.104) is adverse in any respect, the applicant or patent owner, if he or she persists in his or her application for a patent or reexamination proceeding, must reply and request reconsideration or further examination, with or without amendment. See §§ 1.135 and 1.136 for time for reply to avoid abandonment.
- (2) A second (or subsequent) supplemental reply will be entered unless disapproved by the Director. A second (or subsequent) supplemental reply may be disapproved if the second (or subsequent) supplemental reply unduly interferes with an Office action being prepared in response to the previous reply. Factors that will be considered in disapproving a second (or subsequent) supplemental reply include:
- (i) The state of preparation of an Office action responsive to the previous reply as of the date of receipt (§ 1.6) of the second (or subsequent) supplemental reply by the Office; and
- (ii) The nature of any changes to the specification or claims that would result from entry of the second (or subsequent) supplemental reply.
- (b) In order to be entitled to reconsideration or further examination, the applicant or patent owner must reply to the Office action. The reply by the applicant or patent owner must be reduced to a writing which distinctly and specifically points out the supposed errors in the examiner's action and must reply to every ground of objection and rejection in the prior Office action. The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. If the reply is with respect to an application, a request may be made that objections or requirements as to form not necessary to further consideration of the claims be held in abeyance until allowable subject matter is indicated. The applicant's or patent owner's reply must appear throughout to be a bona fide attempt to advance the application or the reexamination proceeding to final action. A general allegation that the claims define a patentable invention without specifically pointing

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out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section.

(c) In amending in reply to a rejection of claims in an application or patent under reexamination, the applicant or patent owner must clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. The applicant or patent owner must also show how the amendments avoid such references or objections

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Presently: The response has arguments which relate to the process – but there is no indication as to why the composition claims define over Itoh.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1 (and 3-7), drawn to a method of manufacturing porous glass base material.

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Group II, claim(s) 2, drawn to a glass base material.

The groups of inventions listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

As per the prior Office action, the claims are anticipated by Itoh. Thus they lack an inventive concept; and lack a special technical feature. Therefore the inventions do not relate to a single general inventive concept and they lack a same or corresponding special technical feature.

Under the assumption that applicant will cure the above deficiencies related to the signature and arguments and file the same amendment to the claims, the following applies:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Specie A1: wherein the temperature difference is within a range of 200-400 C.

Specie A2: wherein the temperature difference is within a range of 500-700 C

Specie B1: wherein the deposition rate is 2040-2160 g/hr.

Specie B2: wherein the deposition rate is 2200-2360 g/hr.

Specie C1: wherein the deposition efficiency is 0.51-0.54.

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Specie C2: wherein the deposition efficiency is 0.55-0.59.

Applicant is required, in reply to this action, to elect a single species (for each of the three groupings) to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise require all the limitations of an allowed generic claim. Currently, the following claim(s) are generic: 1-6 and 9

The claims are deemed to correspond to the species listed above in the following manner:

A1- claim 7, A2 - claim 8, B1- Claim 10, B2- claim 11, C1 - Claim 12, C2- claim 13.

REQUIREMENT FOR UNITY OF INVENTION

As provided in 37 CFR 1.475(a), a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention"). Where a group of inventions is claimed in a national stage application, the requirement of unity of invention shall be fulfilled only

when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim. See 37 CFR 1.475(e).

WHEN CLAIMS ARE DIRECTED TO MULTIPLE CATEGORIES OF INVENTIONS

As provided in 37 CFR 1.475(b), a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

- (1) A product and a process specially adapted for the manufacture of said product; or
 - (2) A product and process of use of said product; or
- (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or
- (4) A process and an apparatus or means specifically designed for carrying out the said process; or

(5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process.

Otherwise, unity of invention might not be present. See 37 CFR 1.475(c).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention or species.

Should applicant traverse on the ground that the inventions have unity of invention (37 CFR 1.475(a)), applicant must provide reasons in support thereof.

Applicant may submit evidence or identify such evidence now of record showing the

inventions to be obvious variants or clearly admit on the record that this is the case. Where such evidence or admission is provided by applicant, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

To summarize: the amendment filed 9/23/2009 has not been entered for the two reasons given above. A restriction requirement is made. Assuming the same claim amendment is filed again, election of species are also required. Applicant must first elect between A1 and A2, then between B1 and B2, and then between C1 and C2.

Although if Applicant elects Group I, no argument is needed as to why claim 2 is novel/defines over the prior art.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder.

All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the

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requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Thursday, roughly 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Hoffmann Primary Examiner Art Unit 1791

/John Hoffmann/ Primary Examiner, Art Unit 1791